The RECORD

SEPTEMBER, 1962

THE SOCIETY OF THE NEW YORK HOSPITAL

CARE OF THE SICK — In our 191st year The Society of the New York Hospital continued an unbroken record of dedication to the care of the physically and mentally ill.

TEACHING — The long affiliation of the New York Hospital and Cornell University Medical College expresses the Hospital time-tested philosophy that great medical institutions must provide for the teaching and training of new doctors, nurses and technicians for tomorrow as well as for the care of the sick today.

RESEARCH — In every clinical and preclinical department of the institution, research probes constantly for new methods of diagnosis, new types of care and wider understanding of new drugs.

PREVENTIVE MEDICINE — The Hospital works constantly not only to cure the sick but to accelerate the development of new knowledge and methods of preventing sickness. Our concept of medicine is to prevent illness as well as to cure it.

CONTENTS

	page
Meet Doctor Martens	4
Dramatic New Method Aids in Brain Surgery	5
Where Does Influenza Go Between Epidemics?	6
Why The Rise in Hospital Costs?	6
Doctor Studies Hormone Mystery	8
More Than Medical Care	10
New Emergency Unit Opens	12
Financial Strength, A Key to Medical Progress	13
Doctors Leave Scientific Legacies	14
The Society of the New York Hospital	15

THE RECORD of The Society of the New York Hospital is published annually to provide its friends and contributors with current information about the activities of The New York Hospital-Cornell Medical Center.

meet Doctor Martens

At the age of twenty-eight, Frederick Martens decided to become a doctor. He gave up a career as a successful businessman in engineering and returned to school. "I received very few acceptances," Dr. Martens recalls. "Most schools told me I was too old, but Cornell Medical College took a different view, so I came to Cornell."

That was ten years ago, and Dr. Martens has since that time been a student in medical school, an intern and a resident. Now as chief resident at the Lying-In Hospital, he is completing his fifth and final year of specialized training in obstetrics and gynecology, which he chose because "it is a happy and pleasant service," and he adds, "because it answers my needs."

Many of the 140 hours he spends each week at the Hospital are devoted to teaching younger doctors and medical students; in the operating room, at the patient's bedside, during floor rounds, and often over a cup of coffee at midnight.

The teaching program at The New York Hospital flows in two directions, while the resident teaches those at a lower level, he learns from the doctors who have more training. Also twice a day, the two chief residents confer with Dr. Gordon Douglas, Obstetrician and Gynecologist-in-Chief. In these informal sessions questions and problems are raised and Dr. Martens says, "I gain more information here than from any single source, textbooks included."

The last two years of additional training beyond the regular three year residency program have provided the most valuable learning and practical experience for Dr. Martens. For example, he has complete responsibility for the administration of patient floors. As he points out, "this is one of the opportunities that makes this residency program a unique one, unrivaled anywhere in this country."

When the year ends, he will combine practice with teaching at a large medical center—perhaps New York-Cornell. "Every conceivable surgical operation is performed here," Dr. Martens says, "and in addition, Dr. Gordon Douglas as Chief is an astute clinician and one of the outstanding doctors to be found anywhere. I'd like to stay!"

Dr. Martens discusses an emergency operation with medical students.

Dr. Douglas reviews a case history with Dr. Martens.

dramatic new method aids in

BRAIN SURGERY

Profound hypothermia—cooling down the entire human body to enable surgeons to operate in a bloodless field—is one of the most dramatic surgical procedures yet devised. This technique is invaluable for brain surgery, where control of bleeding is especially difficult.

Dr. Russell H. Patterson, Jr., Assistant Attending Surgeon, working with Dr. Bronson S. Ray, Neurosurgeon-in-Chief, of The New York Hospital have successfully adapted this technique for the repair of intracranial aneurysms. (An aneurysm is a weak, dilated area in the wall of an artery.) Aneurysms are prone to rupture with disastrous results. About 50 percent of such patients subsequently die.

Operations to repair aneurysms are hazardous because if rupture occurs while the operation is in progress, the resultant hemorrhage is often difficult to control. Through extensive laboratory studies, a method was developed in which the body temperature is reduced to very low levels, stopping the heart and greatly reducing metabolism so that the brain can survive long intervals without circulation.

During the operation the patient is anesthetized and cooling is instituted by an artificial heart-lung machine. The body temperature is reduced to 41 degrees F. and the brain temperature to as low as 45 degrees F. The patient is in a condition simulating death. Breathing ceases. The heart is stopped and circulation arrested. The blood is then drained from the body and the aneurysm can be repaired in a truly bloodless field, thus obviating the danger of rupture.

When the procedure is completed, after as much as 45 minutes of circulatory arrest, the pump is started again, the blood is gradually warmed and normal heart action and respiration resume.

The obliteration of an intracranial aneurysm is one of the most delicate brain operations performed routinely by neurosurgeons. Dr. Patterson and Dr. Ray have made a significant contribution in adapting a new method to treat this condition. Due to their work this Center is recognized as a pioneer in the development and use of hypothermia in brain surgery.

where does INFLUENZA go

The "Asian flu" epidemic of 1957-58 caused an estimated mortality of 60,000 in the United States.

This world-wide epidemic posed three important questions that have since engaged the attention of Dr. Edwin D. Kilbourne, Director of the Division of Virus Research of The New York Hospital-Cornell Medical Center's Department of Public Health. They are:

- Where is the influenza between epidemics?
- How does this virus infection achieve epidemic proportions?
- How can an effective vaccine be produced with sufficient rapidity to stem the tide of an epidemic?

Studying the first of these problems, Dr. Kilbourne and his group have conducted virological research in such widely separated points as Arizona and New York and have produced strong evidence that man himself is the "reservoir" of the influenza virus between epidemics. They have also shown particular susceptibility to this infection among patients with heart disease, pulmonary disorders, and among pregnant women, in the absence of a recognized community epidemic.

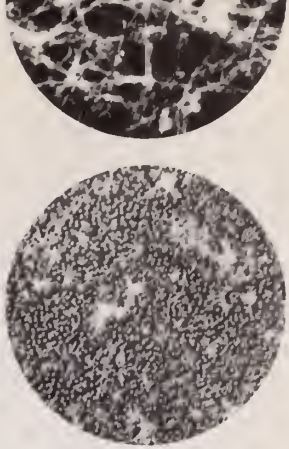
In research concerning the transmission of upper respiratory infection, (colds, sore throats, influenza) their studies have established that trans-

why the rise in hospital costs?

HOSPITAL COSTS are rising and hospital administrators predict they will continue their upward trend.

The dilemma is especially difficult because the increase in cost is primarily a result of vast progress made in medical science which ensures us better patient care than ever before in history. Only a decade or two ago, such medical tools as radioisotopes, the artificial kidney and the heart-lung machine to name but a few, were not available. Tremendous strides in

between epidemics?



Influenza virus strains magnified over 17,000 times.

mission of influenza results from airborne suspended particles and does not depend on direct contact with the carrier.

Further, by simulating summer and winter conditions in an experimental model, this group can promote or arrest the spread of influenza virus infection by altering the basic environmental conditions. Thus, they have introduced a demonstrable seasonal factor on the natural history of virus infection, and in basic epidemiology.

Finally, and perhaps most important, Dr. Kilbourne and his group have been working on the problem of producing a suitable vaccine in sufficient quantity and with sufficient rapidity to enable physicians to stem an epidemic, should there be a repetition of the 1957-58 outbreak. Working in viral genetics, the investigators have crossbred a slow-growing virus possessing high vaccine effectiveness, with a rapidly growing but relatively ineffective strain, and have produced a rapidly growing, highly effective virus strain suitable for use in vaccine production.

These pioneering studies with influenza virus infection, the prototype of most other respiratory conditions, may well point the way to effective prevention and control of one of man's most common problems—upper respiratory infection.

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anesthesiology, radiology, surgery, internal and preventive medicine have changed the face of medical care. Many illnesses and injuries considered hopeless in the past are being treated on a routine basis today.

Although the research that brought about these advances has been financed largely by public funds and private philanthropy, the cost of application of new knowledge to patient care falls on the hospitals. This means new and expensive technical equipment, new space to house it and more trained people to operate it. In the last 12 years, costs for such hospital services have risen 269.8 per cent.

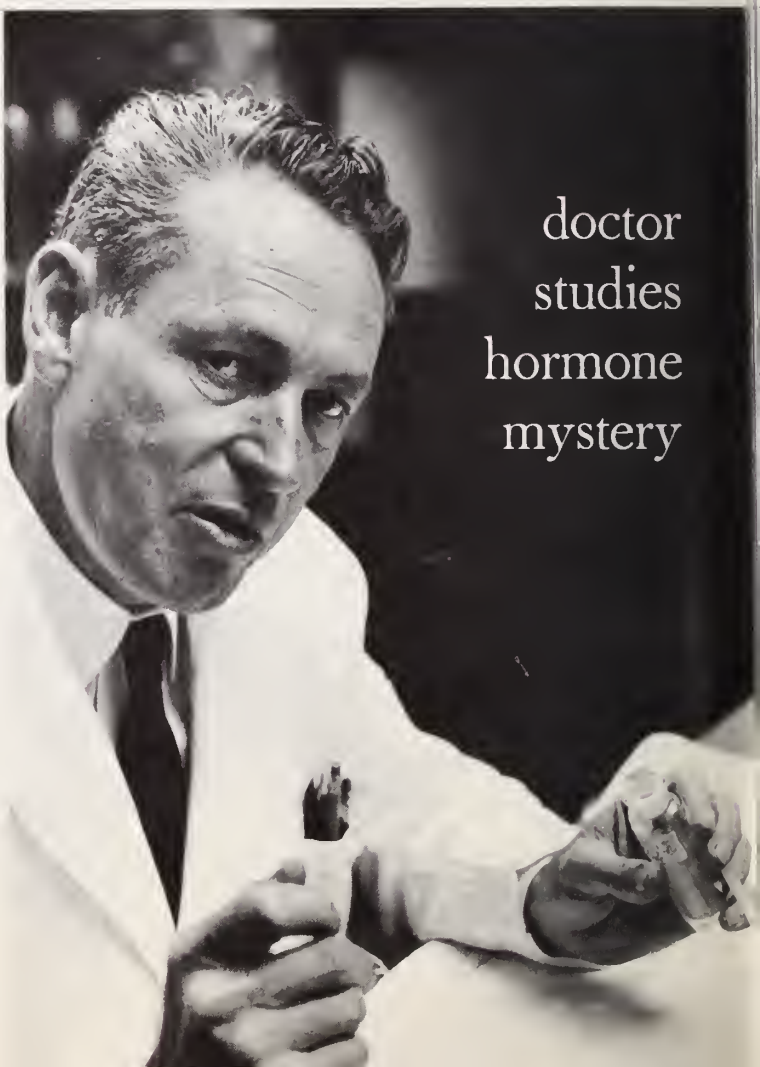
Along with new techniques has come a need for more and better trained nurses. The length of the patient's stay in the hospital has been shortened, particularly in post-operative days, and the hospital now has a far higher percentage of acutely ill patients than has been the case in the past. Because more complicated illnesses can be treated today, more

(continued on next page)

(hospital costs—continued)

highly trained nurses are needed around the clock. Underpaid in the past, today's professional nurse demands and receives a fair salary and reasonable working hours. Costs for nursing staffs have increased 215.1 per cent in the past 12 years.

The inflationary trend in our economy has increased costs to hospitals, as it has to all others in the community, for goods and services. As costs have risen in industry, however, automation has been introduced, increasing the yield per worker and allowing higher wages. Hospitals are personal service organizations dealing with human life, not merchandise, and are limited in the extent to which they can automate. Yet in maintaining their staffs, many around the clock, they must compete with industry for employees. Despite these factors, costs for housekeeping, food service, plant maintenance, clerical and other similar operations have increased only



Dr. Peterson at work in his laboratory.

doctor studies hormone mystery

32.8 per cent since 1950. The Cost of Living Index during the same period has increased 27.5 per cent and industrial wages have risen 74.8 per cent.

Commenting on spiraling costs of patient care, Dr. Henry N. Pratt, Director of The New York Hospital, said, "None of us wishes to curtail the application of new medical knowledge in order to stabilize costs. Today our chances of healthier, longer, more useful lives are greater than ever before. The cost in dollars is high, and will go higher. If the public wants to benefit from the dramatic advances in medical science, it must be ready to pay for it voluntarily, preferably through voluntary health insurance. The alternative, government control of voluntary hospitals, would inevitably lead to a deterioration in quality of care. It would mean the end of the purest form of community institution founded in the finest American tradition."

In a newly remodeled laboratory on the second floor of The New York Hospital, Dr. Ralph Peterson is probing the mysteries of a hormone secreted by the adrenal glands. Called aldosterone, this is the body's most potent salt-retaining hormone.

In 1957, Dr. Peterson, as Senior Investigator at the National Institute of Arthritis and Metabolic Diseases, Bethesda, Md., developed an ingenious technique for measuring aldosterone in the body. This technique facilitated diagnosis of certain forms of hypertension and research in kidney and liver disease, edema, and a whole category of diseases related to salt imbalance.

He is now deeply engrossed in research which seeks the answers to specific questions: Why does the body increase its production of aldosterone in some diseases? What stimulates its production? Does the kidney house an aldosterone-stimulating substance? His studies indicate that it may and he and his staff are trying to isolate this agent.

Dr. Peterson holds a Research Career Award, granted by the National Institutes of Health to scientists of superior accomplishment and capabilities. He is a full-time staff member of the Center, with appointments as Associate Professor of Medicine at Cornell University Medical College and Associate Attending Physician at The New York Hospital.

There are several hundred medical investigators associated with The New York Hospital-Cornell Medical Center who share Dr. Peterson's interest in uncovering new medical knowledge. Their work is highly complex and usually does not result in clear-cut miracles; their contributions to patient care are long range. Most important, their presence is essential for creating a climate of questioning, exploration and sharing of scientific knowledge—a climate in which the best patient care is possible.

Medical Social Worker confers with Staff physician and nurse on a patient's progress.

more than medical care

THE Social Service Department of The New York Hospital this year reached a half-century of service to patients and their families who, at the time of illness, need more than medical care. In these fifty years the needs and problems of people have changed. Tuberculosis prevention and follow-up care were of prime concern in 1912. Today, a wide spectrum of complex human problems must be dealt with and effectively handled: chronic disease . . . those who live alone . . . the aged . . . alcoholism . . . the temporary or permanently disabled . . . people from broken homes . . . adoptions . . . foreign born . . . premature babies . . . unmarried mothers . . . those needing terminal care . . . and many, many more.

Patients are referred by the doctors to the Social Service Department which has representatives in every major department of the Hospital. The medical social workers help the patients through sharing problems and then by giving counsel and guidance. Such counseling requires interviews with the patient, his doctor, his family and frequently with employers, school authorities and social agencies within the community. The core of successful social work lies in the understanding, the support and encouragement given to patients who are anxious over illness or in despair over disability. An actual case history will serve to illustrate the work of social service.

A doctor in the Cardiac Clinic referred Mrs. Smith to the Social Service Department with the diagnosis of "severe cardiac impairment, operative correction imperative, but patient refuses operation now." The medical social worker assigned to the case

found that Mrs. Smith's anxiety about the operation itself and care of her three small children while she was hospitalized were the reasons for her reluctance to take the doctor's advice.

The social worker found that Mrs. Smith's illness had also affected each member of the family. Mr. Smith was worried about the added financial burden and the possible threat to his job if it became necessary to stay at home with the children. And the three children appeared to be fearful and apprehensive.

By skillful counselling the social worker helped both parents realize the need for the operation and to accept it. Then through a neighborhood agency a qualified homemaker was found who would take care of the children. With the assurance that her home would be well taken care of, Mrs. Smith entered the hospital. Her operation was successful but she had a long convalescence.

The social worker continued to follow Mrs. Smith through convalescence and helped her obtain needed rest by placing her children in a summer camp, whose fees were paid in part by the family with supplementary financial assistance from Social Service funds. The children benefited from the change and the opportunity to "be children" again.

In many cases expert medical care is not sufficient to deal with a patient's problems. In these instances the social worker becomes the invaluable link between the hospital and the home. In its fifty years the Social Service Department has helped to overcome seemingly insurmountable problems through skillful counselling and the cooperation of many community and welfare resources.

new emergency unit opens

To meet the need for better emergency care facilities, The New York Hospital-Cornell Medical Center opened a new emergency unit in November, 1961 under the direction of the Department of Surgery.

Virtually self-contained, this unit offers complete X-ray facilities at the south side of the receiving and treatment area; a modern clinical laboratory to the west; a suite of three operating rooms, and a twelve-bed observation unit to the north.

Nine large rooms, affording a high degree of privacy and comfort for the patient, and equipped for all kinds of examinations and treatments, are located within feet of the central doctors-nurses station. In addition, there is a modern plaster room for the immediate care of fractures, and a room for ear, nose, throat and dental examinations and treatments.

This unit was designed not only to make available the finest medical and surgical treatment for the 22,000 emergency patients that come, or are brought, to the Hospital each year, but also to provide or supplement other essential Hospital services.

For example, the X-ray facilities accommodate the Out-Patient Department during the clinic hours, and the entire Hospital after 5 p.m. and on weekends, when the fifth-floor facilities are closed. The clinical laboratory, also available for use around-the-clock, serves a double duty as the laboratory facilities for the Out-Patient Department each clinic day.

The new unit has easy access from 70th Street and ample parking facilities for cars as well as ambulances. It is strategically located adjacent to the new Connie Guion Out-Patient Clinic to allow for reception and admittance to the main Hospital of up to 200 patients in the event of a local disaster. With 24 hours warning, the unit is equipped to admit 800 disaster victims from Boston, Philadelphia and neighboring cities.

A model patterned after this emergency center was presented by surgeons from New York-Cornell at the American College of Surgeon's annual meeting last fall. The research that preceded the new unit, the architectural design and the unit in actual operation are expected to prove valuable guides to other hospitals working to improve what has been called the weakest link in the chain of U. S. hospital care.

In planning this important new facility, flexibility of function was stressed to allow for an emergency patient volume increasing at the rate of five per cent each year, in a way that is economically feasible in the light of increasing operating costs.

Mr. Whitney

Mr. Trask

Dr. Wade

FINANCIAL STRENGTH

a key to medical progress...

The "Fund for Medical Progress," the first campaign for capital funds since The New York Hospital and Cornell University Medical College merged thirty years ago, was launched during the past year to provide the financial strength needed to continue as a world leader in the care of the sick, medical and nursing education, research and the prevention of disease.

The past thirty years have witnessed the most dynamic period in the history of medicine and our Medical Center leadership has played an important role in the shaping of this history, with such important contributions as the internationally accepted and used Papanicolaou Smear Test for cancer detection, the first Eye Bank for storing human corneas for use in corneal transplant operations, the early synthesis of penicillin, and the first synthesis of the polypeptide hormones—oxytocin and vasopressin.

The Medical Center must now realize $54,700,000 through the "Fund for Medical Progress" if it is to meet the challenges of the future in medicine as vigorously as it has in the past. Of this amount $37,000,000 is urgently needed to support patient care, teaching, and research activities and programs. The remaining amount is for expansion and modernization of existing facilities, and the construction of new facilities at the Medical College and the Hospital. To date, almost one-half the objective has been achieved.

The Honorable John Hay Whitney, Editor-in-Chief and Publisher of the New York Herald Tribune, Member and Past-President of the Hospital's Board of Governors, is General Chairman of the Campaign. Frederick K. Trask, Jr., President of the Board of Governors, and Dr. Preston A. Wade, Professor of Clinical Surgery at the Medical College and Attending Surgeon at the Hospital, are assisting Mr. Whitney as Associate General Chairmen.

Francis Kernan, immediate Past President of the Hospital's Board of Governors, is Chairman of the Leadership Committee. Devereux Milburn is serving as Chairman of the Special Gifts Committee and Robert W. Purcell as Co-Chairman.

The Foundations Committee is headed by Jean Mauzé as Chairman and Dr. Irving S. Wright as Co-Chairman, and the Corporation Committee is headed by Kenneth H. Hannan. Drs. William A. Barnes and David D. Thompson are Co-Chairmen of the Cornell University Medical College Alumni Program, and Louis M. Loeb is Chairman and Mrs. John T. Pratt, Jr., is Co-Chairman of the General Solicitation Committee.

Dr. George N. Papanicolaou

Dr. Harold G. Wolff

doctors leave scientific legacies

Dr. George N. Papanicolaou and Dr. Harold G. Wolff died in February of this year. Both had long been associated with The New York Hospital-Cornell Medical Center, Dr. Papanicolaou as former Professor of Clinical Anatomy and Director of the Papanicolaou Research Laboratory at Cornell Medical College, and Dr. Wolff as Anne Parrish Titzell Professor of Medicine (Neurology) at Cornell University Medical College and Director of the Neurological Service of The New York Hospital. Through their outstanding contributions to science and medicine many have been saved from acute suffering and early death.

Dr. Papanicolaou's work in cancer research produced the PAP smear test which became universally accepted as a diagnostic technique for the early detection of uterine cancer. He later developed and improved this test so that it is now used in the diagnosis of cancer in many other parts of the body. His "Atlas of Exfoliative Cytology" in which he explained the PAP smear test in text and by hundreds of illustrations has become the most valued book for cytologists.

Dr. Wolff's detailed studies of every variety of headache resulted in his definition of the mechanisms of headache and of migraine headache in particular. His most recent contribution in this field was his brilliant demonstration of neurokinin, a pain substance resulting from activity of the nervous system and involved in headaches. Through his research Dr. Wolff became increasingly aware of the connection between human problems and health and disease and applied himself with great virtuosity to the study of peptic ulcer, hypertension and other bodily disturbances. In addition to research, Dr. Wolff devoted much of his time to training future neurologists, to writing and to lecturing throughout the world.

The New York Hospital-Cornell Medical Center feels an acute loss in the death of these men. They cannot be replaced, but each has left a remarkable scientific legacy on which outstanding scientific achievements in the future surely will be built.

THE SOCIETY OF THE NEW YORK HOSPITAL—*for the year* 1962

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